1. Name the integers in array A . Compute the square of integers in A and put them in another array B and name them . Here the integers in B should be corresponding to A, which means for all integers i from 1 to n. Since there are n elements in A, we would do this step n times.

For each i, j from 1 to n, which i is not equal to j, calculate , and put it in another array C. The size of C is .

We just need to compare values in C. Sort the array in time . Go through sorted C and determine if a number appear at least twice. If there is, then there exist four integers that satisfy the condition.

1. Apply the same algorithm above, except using a hash table of size to hash elements in C and go through all of the slots and check by brute force if the same number appears twice.